Meeting of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriol[og] (Biological) and Toxin Weapons and on T[he] Destruction

20 August 2018

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2018 Meeting
Geneva, 4-7 December 2018

Meeting of Experts on Review of developments in the field of science and technology related to the Convention
Geneva, 9-10 August 2018
Items 4, 5, 6 and 7 of the agenda
Review of science and technology developments relevant to the Convention, including for the enhanced implementation of all articles of the Convention as well as the identification of potential benefits and risks of new science and technology developments relevant to the Convention, with a particular attention to positive implications

Biological risk assessment and management

Development of a voluntary model code of conduct for biological scientists and all relevant personnel, and biosecurity education, by drawing on the work already done on this issue in the context of the Convention, adaptable to national requirements

Genome editing, taking into consideration, as appropriate, the issues identified above

Review of Developments in the field of Science and Technology related to the Convention

Submitted by the Bolivarian Republic of Venezuela on behalf of the Non-Aligned Movement and other States Parties to the Biological and Toxin Weapons Convention

I. Introduction

1. NAM and other States Parties to the BWC welcome that during the 2017 Meeting of States Parties to the Biological Weapons Convention (BWC) reached consensus on an intersessional programme from 2018 to 2020.

2. The purpose of the ISP is to discuss, and promote common understanding and effective action on those issues identified for inclusion in the intersessional programme. The work in the intersessional period will be guided by the aim of strengthening the implementation of all articles of the Convention in order to better respond to current challenges.

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3. The Group of NAM and other States Parties to the BWC highlights that the Inter-sessional Period (ISP) is important in the absence of detailed treaty provisions for implementation. We believe that the ISP should aim at achieving progress in the implementation of all articles of the Convention in a balance, comprehensive and consensus based approach.

II. Agenda Item 4: Review of science and technology developments relevant to the Convention, including for the enhanced implementation of all articles of the Convention as well as the identification of potential benefits and risks of new science and technology developments relevant to the Convention, with a particular attention to positive implications

4. NAM and other States Parties to the BWC recall that at the Eighth Review Conference we expressed our view that there may be benefit in reviewing S&T developments in a regular and systematic manner and that such review could be carried out in the current inter-sessional program.

5. NAM and other States Parties believe that the rapid pace of developments in biological science and technology has implications for the implementation of the BWC, both in terms of S&T advances which can be used for purposes contrary to the objectives of the Convention and S&T advances which could be of special relevance for the implementation of the Convention as well as for assistance and cooperation to the developing countries. The discussions under this Meeting of Experts have the potential to enhance scientific understanding and knowledge sharing among States Parties.

6. Advances in enabling technologies like bioinformatics; computational biology; DNA microarrays; gene synthesis technology; high-throughput mass spectrometry; high-throughput sequencing; nanotechnology; synthetic biology; systems biology; and whole-genome directed evolution are critical for future life sciences research and development. These enabling technologies have many benefits in faster, cheaper, and easier application of biological science and technology for both public health and security purposes, increased capacity and better understanding of disease and healthcare technologies by more people in more locations throughout the world.

7. Furthermore, new science and technology developments have many potential benefits for the Convention in improved health care, increasing capacity to diagnose and treat diseases, more efficient food production, more renewable energy resources and better pollution management. In this regard, the Group stresses the importance of the adoption of a plan for active and fullest exchange of knowledge and technology in areas related to enabling and new technologies between developed and developing countries to ensure the unhindered flow of scientific information and technology.

8. There should be no hindrance to the peaceful activities of States Parties, such as vaccine development, medicines and diagnostic equipment, which are essential for developing countries for meeting their public health needs. There is need for equitable benefits from international cooperation in this area, keeping in mind the need for ensuring appropriate and affordable support for developing countries. The Ebola outbreak in West Africa signifies the fact that any disruption of immunization services, even for short periods would risk the increase of the likelihood of vaccine preventable disease outbreaks. This means that States Parties must scale-up routine and urgent immunization activities. Therefore, we also are of the view that the developing countries need to meet their needs

for cost-effective, affordable and quality assured medicines and vaccines including through provisions such as compulsory licensing or price controls.

9. NAM notes that there have been recent advances demonstrating the increasing sophistication of synthetic biology, together with other enabling technologies, which have benefits, together with the potential for uses contrary to the provisions of the Convention. All States must conduct such activities in a transparent manner, in order to build the confidence of other States Parties. There is a need to regulate these activities, to ensure that they do not lead to any concerns related to ethics, safety and security as well as any uses contrary to the Convention.

10. This has assumed added importance in the light of reports concerning experiments that have been taking place on highly contagious virulent flu strains like H5N1, as well as the production of several new strains of viruses that are both contagious and deadlier than the 1918 Spanish flu that killed almost 50 million people, and the discovery of the deadly smallpox variola virus dating back to the 1950s. Such regulation must, however, be undertaken in a manner that does not hamper scientific and technological developments that are in keeping with the spirit and letter of the Convention, which are of benefit, more especially to developing countries. These recent developments once again highlight the need to conclude a legally binding agreement on appropriate multilateral verification arrangements. In the past, useful work has been done in this regard under the BWC in the Ad-hoc Group and NAM continues to attach high importance to preserving and eventually resuming that work.

11. Concerning the dual use nature of some of the new technologies, the Group is aware that there is a potential for uses contrary to the provisions of the Convention including by programming cells to produce toxins, viruses or other cells which could cause harm, designing and building new or altered pathogenic viruses, the ability to confer mammalian transmissibility to viruses or drug resistance to pathogens, the decreasing genetic diversity and the development of incapacitating weapons and the increasing capacity to deliver biological weapons via the alimentary route.

12. The Group reiterates its position that the dual use nature of these technologies by itself should not in anyway hamper the free and fullest exchange of technologies between the parties to the Convention especially when some developed countries are freely engaged in many activities that rest in the domain of these new technologies in the framework of their bio-defence programs.

13. States Parties should undertake all efforts to prevent actions and decisions within the BWC that would raise obstacles to the development of biological sciences in developing countries. The need to prevent harmful activities should never hamper scientific evolution for peaceful purposes and life-saving achievements like vaccine development. Developing countries, in particular, could benefit from advances in technologies that make vaccine production simpler, faster, cheaper and more efficient.

14. The rapid development of science and technology has created significant opportunities for international cooperation to narrow the increasing gaps persisting in the fields of biotechnology, genetic engineering, microbiology and other related disciplines between developed and developing countries.

15. NAM highlights the importance of continued deliberations on S&T to promote common understanding and effective actions which would help States Parties to benefit from these developments.

III. Agenda Item 5: Biological risk assessment and management

16. The Group of NAM and other States Parties to BWC would like to reiterate some perspectives on the issues of biosafety and biosecurity which are part of the discussions on S&T review.

- First, the Group notes that both these issues were discussed in the last inter-sessional process as well as the Eighth Review Conference.
- Second, there is no commonly agreed definition of biosafety and biosecurity in the Convention. We strongly believe that the relevant national authorities should have the responsibility in defining and implementing such concepts, in accordance with relevant national laws, regulation and policies, consistent with the provisions of the Convention. The adoption of decisions and recommendations on this issue within the framework of the BWC belongs exclusively to the States Parties of the Convention.
- Third, achieving necessary standards in the fields of biosafety and biosecurity requires capacity building, and is facilitated by, international cooperation and through full and effective implementation of Article X of the Convention.

17. NAM and other States Parties to BWC believe that enhancing scientific and technological understanding will be inadequate if ways and means are not found for technology transfers by the developed countries to developing ones. The unhindered exchange of science and technology in the framework of the Convention is also important in the context of enhanced national implementation of the Convention by developing countries which in many circumstances lack resources- technological, financial and human – required for the effective implementation of all provisions of the Convention.

IV. Agenda Item 6: Development of a voluntary model code of conduct for biological scientists and all relevant personnel, and biosecurity education, by drawing on the work already done on this issue in the context of the Convention, adaptable to national requirements

18. The Group of NAM and other States Parties to the BTWC would like to reiterate its position related to codes of conduct which are part of the discussions on S&T review.

The Codes of Conduct remain the prerogative of the States Parties to decide on the development, content, promulgation and adoption of the code in accordance with relevant national laws, regulations and policies, consistent with the provisions of the Convention.

19. Codes of Conduct should avoid any restrictions and/or limitations on exchange of scientific discoveries in the field of biology for prevention of disease and other peaceful purposes. Subjecting scientific research and the free flow of scientific information to undue restrictions and/or limitations may amount to a violation of obligations undertaken under Article X of the BWC.

20. The NAM and other States Parties to the BWC attach importance to the common understanding and effective action reached in 2012 and 2015 on the review of developments in the field of S&T. The Group emphasizes that a balanced approach towards consideration of all common understanding and effective action including those reached under agenda item "Review of the S&T developments in the field of science and technology related to the Convention" is essential.

21. To that end, we are of the view that progress towards further common understanding and effective action under this agenda item including consideration of developments of voluntary code of conduct, shall be pursued in a balanced and holistic manner. In this regard, the Group while emphasizing its position with regard to Code of Conduct as above, notes working paper BWC /MSP/ 2018/ MX.2/ WP.9 submitted by China and Pakistan.

V. Agenda Item 7: Genome editing, taking into consideration, as appropriate, this issue identified above

22. Genome editing was chosen by MSP 2017 as a specific topic to be discussed in this MXP. Genome editing is one of the few recent developments in the field of biotechnology in which fundamental researches have quickly reached an applied level. This technology today has widespread applications for peaceful use in various fields including in medical sciences, industry and agriculture. NAM believes such an important issue needs to be discussed and addressed in our deliberations during the ISP.

23. However, at present a limited number of countries have acquired the capability of applying genome editing technology not only for their scientific research and the promotion of the public health, but also for contributing to their economic growth.

24. While concerns regarding potential risks of genome editing need to be addressed appropriately including by redoubling efforts to enhance universalization of the BWC, such concerns should not be used as a pretext to hamper the economic or technological development of States Parties to the Convention or international co-operation in the field of peaceful biological activities and to deprive developing countries from access to genome editing technology and its benefits.